

CLAIMS

What is claimed is:

[Claim 1] In a vehicular headlamp comprising a light-emitting element comprising a light-emitting portion and fluorescent body adjacent said light-emitting portion, and an optical system comprising a reflector and a lens, the improvement wherein a focal point of said optical system is located at or closely adjacent said light-emitting portion of said light-emitting element, and wherein a dimensional error in an outer shape of at least one of said reflector and said fluorescent body viewed in the direction of the optical axis of said light-emitting element is not more than 0.1 millimeters, said dimensional error being less than a positional error of said light-emitting portion with respect to said reflector and said lens.

[Claim 2] The vehicular headlamp according to claim 1, wherein said light-emitting portion when viewed in said direction of said optical axis of said light-emitting element has a shape that is horizontally elongated in a direction orthogonal to said optical axis, and a light source image of said light-emitting portion is primarily enlarged in a horizontal direction by optical system to form a light distribution pattern.

[Claim 3] The vehicular headlamp according to claim 2, wherein one side of a side edge of said light-emitting portion, when viewed in said direction of said optical axis of said

light-emitting element has a straight shape, a projected pattern of said straight shape forming a cut line for a low-beam light distribution pattern.

[Claim 4] The vehicular headlamp according to claim 3, wherein said light-emitting portion is rectangular viewed in said direction of said optical axis of said light-emitting element, and a longer side of said light-emitting portion is aligned with and orthogonal to a center axis of said lens.

[Claim 5] In a method for manufacturing a vehicular headlamp comprising a light-emitting element comprising a light-emitting portion and fluorescent body adjacent said light-emitting portion, and an optical system comprising a reflector and a lens which project a light source image of said light-emitting portion in an enlarged manner, a focal point of said optical system being located at or closely adjacent a light-emitting portion of said light-emitting element, the improvement comprising controlling a dimensional error in an outer shape of at least one of said reflector and said fluorescent body viewed in the direction of the optical axis of said light-emitting element to be not more than 0.1 millimeters, said dimensional error being less than a positional error of said light-emitting portion with respect to said reflector and said lens..

[Claim 6] The method for manufacturing the vehicular headlamp, according to claim 5, wherein said light-emitting element comprises a plurality of light-emitting portions, and wherein a relative positional error between said light-emitting portions and outer

boundaries of said light-emitting element is controlled so as to be not more than ± 0.01 millimeters.

[Claim 7] The method for manufacturing a vehicular headlamp, according to claim 6, wherein an outer edge of a base plate portion of said light-emitting portion of said light-emitting element defines an attachment data point of said light-emitting element with respect to a supporting member, one side of a side edge of the light-emitting portion, when viewed in said direction of said optical axis of said light-emitting element, is formed in a straight shape, and a degree of a relative positional error between said one side and said outer edge of the base plate portion is controlled so as to be no more than 0.01 to 0.1 millimeters.